

Remarks

In paragraph 4 of the second Office Action, the Examiner has objected to claims 8-11, 21-23 and 31-33 but has indicated these claims would be allowable if rewritten in independent form. Accordingly, claim 8 has been cancelled and resubmitted in independent form as new claim 35. Claims 9-11 have been amended to depend from new claim 35. Claim 21 has been cancelled and resubmitted in independent form as new claim 36. Claims 22 and 23 have been amended to depend from new claim 36. Claim 31 has been cancelled and resubmitted in independent form as new claim 37. Claims 32 and 33 have been amended to depend from new claim 37. Therefore, it is believed that claims 9-11, 22, 23, 32, 33 and 35-37 are now in condition for allowance.

In paragraph 3 of the second Office Action, the Examiner has rejected claims 1-7, 12-20, 24-30 and 34 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,816,711 to Gingrich. The Examiner states:

Gingrich discloses a seal for use between a rotating surface or rotor (B) and stationary surface or housing comprising a ring (56), sealing surface, pair of race engagement surfaces (opposite sides of 56), pair of first races (at 20), a pair of second races (at 30), and a plurality of bearing elements (52) within bearing openings as claimed. The seal also has bearing cages (54), planar first bearing surfaces (18) and planar second bearing surfaces (32), rollers (52), and recess (around 18) as shown. The housing sealing surface (22) is substantially cylindrical and the ring sealing surface (within 56) is substantially concentric with the housing sealing surface.

Applicant respectfully traverses this rejection for the following reasons.

Gingrich fails to show specific elements of every claim and therefore is an insufficient reference under 35 U.S.C. §102(b).

With regard to claims 1 and 14, and the claims depending therefrom, Gingrich's element 56 is not a ring as claimed herein, but rather a seal which establishes a dynamic fluid barrier between cup 30 and thrust rib 20. It has a stamped metal case pressed into

bore 36, a stamped metal shield pressed over cylindrical surface 22, and elastomeric seal elements between the case and shield. That is, element 56 in Gingrich is a multi-piece seal, whereas the claimed ring in the present invention is a single, solid piece.

Applying the language of the claims herein to Gingrich, the first race must be cone 16 because it rotates, and the second race must be stationary cup 30. Therefore, the outside diameter of seal 56 is the sealing surface and the race engagement surface. In the present invention, the race engagement and sealing surfaces are separate. Claims 1 and 14 have been amended to include the limitation of the race engagement and sealing surfaces being separate. Claim 5 has been amended to correct a typographical error so that it depends from claim 4. In view of these changes, it is believed the claims should be allowed.

With regard to claims 4-6, 17-19 and 28-30, contrary to the examiner's comments, Gingrich does not show planar or parallel bearing surfaces. In Gingrich, bearing surfaces 18 and 32 are conical, not planar. Thus, they cannot be parallel, either. Therefore, Gingrich cannot be used as a reference to reject these claims under 35 U.S.C. §102(b) for this reason alone.

With regard to claims 7 and 20, Gingrich also does not show a first race with a recess in which the second race and bearing elements are disposed. Accordingly, Gingrich cannot be used as a reference to reject these claims under 35 U.S.C. §102(b) for this reason alone.

With regard to claims 13 and 25, Gingrich further does not have a pair of race engagement surfaces on opposite sides of the ring. The second bearing in Gingrich is a totally separate portion far removed from seal 56. It is therefore respectfully submitted

that Gingrich cannot be used as a reference to reject these claims under 35 U.S.C. §102(b) for this reason alone.

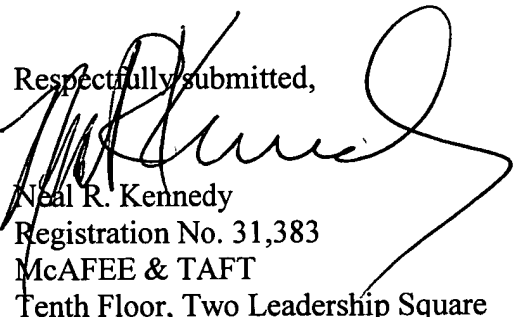
Finally, with regard to claim 26, Gingrich discloses neither inner and outer annular portions on a first race nor a second race disposed between such annular portions. Thus, Gingrich again cannot be used as a reference to reject this claim under 35 U.S.C. §102(b) for this reason alone.

Summary

Claims 8, 21 and 31 have been cancelled and resubmitted in independent form as new claims 35, 36 and 37, respectively. Claims 9-11 have been amended to depend from new claim 35, claims 22 and 23 have been amended to depend from new claim 36, and claims 32 and 33 have been amended to depend from new claim 37. Therefore, claims 9-11, 22, 23, 32, 33 and 35-37 should be in condition for allowance.

Claims 1, 5 and 14 have been amended. In view of these amendments and the arguments presented, it is believed that the remaining claims are patentably distinguishable over the prior art of record and should be allowed.

Respectfully submitted,



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